

CLAIMS

1. A printing mask comprising a mesh extended on a mask frame, in which a mask portion is formed by filling the mesh with resin to leave a pattern forming portion in a region corresponding to an electrode pattern to be formed on a printing object, wherein

the mask portion includes a raised part that is formed to be raised above a surface of the mesh facing the printing object, and the thickness of the raised part is such that a difference in average film thickness between the end and other parts of the electrode pattern formed with the printing mask is equal to or less than 5 micrometers.

2. The printing mask according to claim 1, wherein the thickness of the raised part is less than 5 micrometers.

3. A printing mask comprising a mesh extended on a mask frame, in which a mask portion is formed by filling the mesh with resin to leave a pattern forming portion in a region corresponding to an electrode pattern to be formed on a printing object, wherein

on the printing mask is defined a peripheral pattern of resin with a predetermined width along the periphery of an opening region in the mesh.

4. The printing mask according to claim 3, wherein the peripheral pattern is formed within a range corresponding to the width of a bulge from the end of the electrode pattern, which is formed at the end of the electrode pattern on forming the electrode pattern with a printing mask.

5. The printing mask according to claim 3, wherein the peripheral pattern is formed with a line width of equal to or smaller than 0.2 millimeter within a range not less than 0.1 millimeter and not more than 0.5 millimeter inside the periphery of the opening region.

6. The printing mask according to claim 3, wherein the mask portion includes a raised part with a thickness equal to or less than 3 micrometers, which is formed to be raised above a surface of the mesh facing the printing object.

7. A printing mask comprising a mesh extended on a mask frame, in which a mask portion is formed by filling the mesh with resin to leave a pattern forming portion in a region corresponding to an electrode pattern to be formed on a printing object, wherein

the mask portion includes

a raised part that is formed to be raised above a surface of the mesh facing the printing object; and

an filled part that is formed within the mesh, and

the end of the filled part is extended compared to the end of the raised part on the opening region side.

8. The printing mask according to claim 7, wherein the end of the filled part is extended by not less than 0.3 millimeter compared to the end of the raised part on the opening region side.

9. A solar cell comprising:

a semiconductor layer formed on a semiconductor substrate having a p-n junction in parallel with a substrate surface;

a front silver electrode formed in a predetermined shape on a surface of the semiconductor layer;

a back aluminum electrode formed on a back surface of the semiconductor layer so that a part of the semiconductor layer is exposed; and

a back silver electrode formed to cover an exposed part that is not covered by the back aluminum electrode on the semiconductor layer and a part of the back aluminum electrode arranged adjacent to the exposed part, wherein the back aluminum electrode is formed with the printing mask according to any one of claims 1, 3, and 7.

10. A flat panel display comprising a display panel that includes display elements arranged in a matrix to perform display by switching lights from a self-light emitting element or another light source; a circuit that drives the individual display elements; and an electrode of a predetermined pattern connected to the circuit, wherein

the electrode is formed with the printing mask according to any one of claims 1, 3, and 7.

11. A chip capacitor that includes a plurality of dielectric sheets laminated together, each with an electrode pattern on both sides, wherein the electrode pattern is formed with the printing mask according to any one of claims 1, 3, and 7.